plasmon, etc., are of service. Alcoholic stimulation may be necessary. In the excessive diarrheas, after the disappearance of blood, subnitrate of bismuth and opium are valuable. Thirst is best relieved by cracked ice; pain is relieved by turpentine stupes, and tenesmus is remedied by small enemata of opium and starch.

9. *Psychiatric Wards at Copenhagen.*—A short account of the buildings used in the Copenhagen general hospital for psychiatric purposes. JELLIFFE.

Jahrbücher f. Psychiatrie und Neurologie.

(Vol. 21, Nos. 1 and 2, 1902.)

1. Changes in the Motor Cells of the Spinal Cord After Resection and Tearing out of the Peripheral Nerves. E. STRAUSSLER.
2. Migraine Psychosis. KRAFFT-EBING.
3. Clinical Discussion of So-Called Traumatic Syringomyelia. R. KNIEBOCK.
4. The Clinical and Anatomical Facts in a Case of Cerebellar Tumor. M. PROBST and K. von WIEG.
5. A Case of Isolated Softening of the Gyrus Hippocampus and Its Immediate Vicinity—Secondary Denegeration. E. BISCHOFF.

1. *Changes in Motor Cells of Spinal Cord.*—Although for a decade the ganglion cells have been most earnestly studied, the results cannot be said to be satisfactory. The difference of opinion has extended even to the fundamental principles which Nissl promulgated, namely, that changes in the nerve cell take place when there is a break in continuity between the nerve and the muscle cell, irrespective of how the break occurs; that is, whether the nerve is simply cut, resected, or torn out with violence. Van Gehuchten and others found that simple interruption of continuity caused no cellular changes, while De Buck and Vanderlinden were not able to demonstrate cell changes in a number of experimental amputations on the extremities of animals. Marinesco has repeatedly called attention to the fact that a difference exists accordingly as the nerve is torn, or is simply cut. With this question came also another, that of retrograde degeneration, which, first announced by Nissl, was seized upon eagerly by other investigators as an explanation of the various different findings in experiments of this nature. The author of this paper planned a series of experiments which had for their main purpose the determination of the difference in the cells of the cord which is found when a simple break in continuity of a nerve fiber exists and in one in which the break is caused by the forcible tearing out of the nerve. Cats were used for the experiment and the brachial plexus or the sciatic nerve was selected as the object of the experiment. The results after resection were the following: From five to thirty days after the operation a gradual progressive alteration of the ganglion cells was observed. This alteration was especially marked in the tigroid substance. It was accompanied by swelling of the cells, with little or no alteration of the nucleus. The cell branches were broken. After tearing out the spinal nerves, cellular changes appeared in twenty-four hours, which at first were limited to the tigroid substance. Within five days definite changes in the nucleus were added, which in many cases resulted in the destruction of the same. Thirty days after the operation the process is concluded with the destruction of more than half the cells. Tearing out of the spinal nerves causes a lesion of the anterior column, which leads to a reactive inflammation, with proliferation of the glia cells. The author ends this study with the following general conclusions: (1) The changes which follow an uncomplicated simple resection of the spinal nerves

are not directly of importance to the life of the cell and to the trophic activity of the same. (2) Tearing out of a nerve is followed by severe degenerative changes in the cell, which is not dependent upon the break in continuity nor on the location of the lesion, but upon the reactive inflammation caused by the trauma. (3) The cell changes which follow simple break in continuity cannot be explained by the fact of the degeneration in the proximal portion of the nerve fiber following the lesion. Severe cells changes depend upon other causes than simple break in conduction. To offer as an explanation for the cell changes retrograde degeneration in the Nissl sense is of no value.

2. *Migraine Psychosis.*—The fact that a migraine attack is sometimes accompanied by a transitory psychosis led Krafft-Ebing to think that perhaps the relation is not a matter of chance, but that the psychosis was a direct result of the migraine. The psychical disturbances accompanying an ordinary migraine are too slight to be of great importance. They are simple anxiety, depression, fear, etc. Those migrainous attacks which develop upon an epileptic basis are complicated with certain forms of psychosis, which may be considered either an epileptic equivalent or a manifestation of post-epileptic insanity. Especially to be mentioned is the so-called ophthalmic migraine, which more frequently than the other forms accompanies an epileptic attack. Towards the elucidation of this question, Krafft-Ebing reports nine cases, careful clinical histories of which are included in this article. From these observations and others, Krafft-Ebing believes that there is no proof at present that such a form as an independent hemicranial psychosis exists. The question must be regarded as still open. The variety of such psychoses is a proof of their etiological complexity. It is only in cases of ophthalmic migraine, or that complicated with Jacksonian epilepsy, that transitory psychoses have been observed.

3. *Traumatic Syringomyelia.*—This paper by Kniebock is a valuable and painstaking review of all the published cases of so-called traumatic syringomyelia, for the purpose of testing the accuracy of the term and for the purpose of finding out the place which trauma occupies in the causation of this disease. It was Leyden, in 1874, who first called attention to a cystic degeneration of the cord following trauma. Since then numerous cases have been reported in literature. It is with a critical estimation of these cases that this paper has to do. The author defines syringomyelia as a condition in which chronic progressive foci of disease appear in the spinal cord. Such foci are situated in its center with a longitudinal direction, and the process is accompanied by glia hypertrophy, severe vascular changes, and by the formation of cavities. This definition is to be understood in its narrower sense only, namely, that of syringomyelia gliosa, as it is only in this form that a clinical diagnosis *intra vitam* can be made. Other affections which have to do with cavity formation, such as hydromyelia, sclerotic scars following injuries, do not come within the limits of this definition. The term traumatic syringo-myelia should be given only to those cases in which the disease is caused by trauma, and in which the symptoms, both clinically and anatomically, are characteristic of this disease. This term should neither be given to those cases which are really not syringomyelia (gliosis), not to such in which the trauma is merely a secondary factor. One hundred and forty cases are collected from the literature; nine cases of the author's own are likewise considered. Some of the data derived from a study of this large material are as follows: The first division consists of cases which were diagnosed as traumatic syringomyelia and none of which satisfied the conditions of the above definition. This series illustrates how a centrally-located traumatic lesion can produce a symptom

complex very similar to that of syringomyelia but differing from it essentially in the lack of a chronic progressive course. A second group consists of six cases in which the symptoms were produced by a cystic degeneration of scar tissue following traumatic destructive foci. Here the cavities are mere softening cavities, produced in part by beginning absorption of the softened substance in the center of the focus and in part artificially by post-mortem manipulation. A further group is noted of severe traumatic spinal lesions in which changes in the spinal canal followed. A second division consisted of clinical observations in syringomyelia in which the traumatic nature can be set aside with great certainty. In this division it is not the diagnosis of syringomyelia which is at fault, but the term traumatic, as significant of an etiologic factor. To this group belong also the cases which result from peripheral trauma. There are two groups in this division, one consisting of cases in which too long an interval has elapsed between the trauma and the beginning of the symptoms, and the other where the interval was entirely too short, in one case less than one week. All these cases are carefully described and a critical study of them is added in each instance. The author concludes as the result of the study of this material that after careful examination of all the known cases, no certain example of traumatic syringomyelia, that is pure (*per se*), caused by a powerful trauma, can be found. Contrary to the opinion of many authors, Kniebock holds that the existence of a simple chronic and hematomyelogenous (that is the condition that follows a paralysis, especially paraplegia, caused by apoplexy) traumatic syringomyelia is a matter of much doubt. Outside of the clinical interest in this subject there is also a forensic side. It has always been thought a matter of certainty that a traumatic syringomyelia existed; now that this is not very likely, the question of damages in a case of syringomyelia developing after trauma must take into consideration either the likelihood of a latent syringomyelia or some special predisposition on the part of the patient. A very complete and well-arranged bibliography is found in this paper. The article is in every sense an admirable one and adds a great deal to our knowledge of this subject.

4. *Clinical and Anatomical Facts in a Case of Cerebellar Tumor.*—It has come to be believed that the function of the cerebellum has not only to do with regulation of voluntary movement of the body, but also serves as a sensory-motor organ. Clinical observation in increasing number has strengthened the latter hypothesis. Experimental evidence as to the function of the cerebellum cannot be directly applied to human cases; therefore each case of cerebellar tumor should be more carefully studied clinically and pathologically. To accomplish the latter purpose it is necessary to make a very exact serial section of the whole cerebellum. The case upon which the article is based is that of a boy, 12 years old, with no hereditary history, who had suffered for some months from vertigo, headache and vomiting. On examination the left side of the face was less responsive to stimulation than the right; the pupils were wide and did not react to light and accommodation. There was a papillitis with beginning atrophy. In the arms and legs there was slight ataxia. Romberg symptom, knee-jerks increased on both sides. The patient was passive and indifferent.

The anatomical substratum for this symptom-complex was a glioma of the cerebellum, which had grown to the middle lobe and the left lateral lobe, and had caused a hydrocephalus, with symptoms of increased intracranial pressure. A careful description of the microscopical findings in the serial sections is given in the article, which is illustrated by microphotographs.

5. *A Case of Isolated Softening of the Gyrus Hippocampus and Its Immediate Vicinity—Secondary Degeneration.*—The anatomical connection of the hypocampal gyrus which in all probability has to do with the cortical smell center, has been very little studied. There is no report in literature of the study of an isolated lesion of this region. A short clinical résumé of the case is as follows: Woman, aged 65 years. For twenty-three years she has had epileptic attacks from three to six times each month. Some of these attacks were followed by epileptic stupor or psychosis. She died of marasmus. During life careful examination revealed nothing abnormal in respect to the special sense nerves or to motility or to sensibility. Autopsy showed a moderately diffuse cortical atrophy and a focal disease on the inferior and internal surface of the right temporal lobe. Serial sections of the frontal and temporal lobes were made; the focus was found to be cyst. This case seems to offer definite proof of the fact, which has been assumed already, in studies of comparative anatomy and embryology, that the nerve fibers of the fimbria arise exclusively in the gyrus hypocampus, the uncus and the Ammons horn, that the fornix is made up of two portions in its dorsal knee, the fimbria portion and the so-called fornix longus, the latter arising from the corpus callosum. It appears that in man the calumna is an uncrossed communication between the Ammon's horn and the corpus mammillaria of one side. The fibers of the fornix longus end, as this case shows, in the neighborhood of the septum pellucidum, the fimbria fibers in part uncrossed in the lateral nucleus of the corpus mammillaria and in part crossed in the region of the septum pellucidum.

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Nouvelle Iconographie de la Salpêtrière.

(No. 2, March-April, 1902.)

1. Affections of the Cauda Equina and the Lower Segment of the Cord. F. Raymond.
2. The Anatomy of the Lacunæ of Disintegration of the Brain. Jean Ferrand.
3. Degenerative Infantilismus, Complicated with Dysthroidea of Puberty (Brissaud's Type). E. Dupré and Phillipe Pagniez.
4. Congenital Absence of the Greater and Lesser Pectoral. A. Souque.
5. Little's Syndrome. Gaston Daniel.
6. The Sense of Attitude. Bonnier.
7. Note on the Radicular Topography of Myelopathic Muscular Atrophy. Cestan and Huet.

1. *Affections of the Cauda Equina and of the Lower Segment of the Cord.*—The anatomical limits of the conus terminalis have been fixed arbitrarily by anatomists. Recently Müller of Erlangen has found a basis that seems to be strictly scientific. That portion of the cord which gives rise to the last three pairs of sacral nerves and to the coccygeal nerve differs essentially in its histologic constitution from the adjacent structure. Raymond founds his limit upon clinical grounds in the following way: It comprises all paralytic symptoms of the bladder and rectum, associated with impotence in the male and an anesthesia limited to the anus, perineum, scrotum, penis in men, to the vulva, labia majora, and to the urethro-vesical mucous membrane in women. To this group of symptoms another may be added as it is frequently met with, consisting of a motor paralysis of the posterior region of the thighs, the legs, and the feet; (2) an anesthesia, total or dissociated, which occupies the median part of the posterior aspect of the thighs and legs, the external edge of the leg and foot, sometimes all the surface of the foot with the exception